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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/582,264	05/21/2007	David A. Waldman	APR-004US	4793
24902 7590 01/11/2010 KENNETH J. LUKACHER SOUTH WINTON COURT 3136 WINTON ROAD SOUTH, SUITE 301 ROCHESTER, NY 14623				
EXAMINER				
HUBER, PAUL W				
ART UNIT		PAPER NUMBER		
2627				
MAIL DATE		DELIVERY MODE		
01/11/2010		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/582,264

Applicant(s)

WALDMAN ET AL.

Examiner

Paul Huber

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 October 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5, 8-22, 25-36, 44 and 46-77 is/are pending in the application.
- 4a) Of the above claim(s) 3, 11, 15, 16, 20, 28, 32, 33, 47, 57, 69, 73, 74 and 77 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1, 2, 4, 5, 8-10, 12-14, 17-19, 21, 22, 25-27, 29-31, 34, 50-56 and 58-64 is/are allowed.
- 6) ☒ Claim(s) 35, 36, 46, 48, 49, 65, 66, 70, 72, 75 and 76 is/are rejected.
- 7) ☒ Claim(s) 44, 67, 68 and 71 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-692)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

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Applicant's election with traverse of Species II (figure 4) in the reply filed on October 5, 2009 is acknowledged. The traversal is on the ground(s) that "all FIGS 3-6 relate to carrying out fixing using optical energy from recording while recording of at least one hologram is being carried out." This is not found persuasive because as described in the restriction requirement the species lack the same or corresponding technical features as the species each include elements which are disclosed as being used mutually exclusive of each other and hence may each be patentable as a separate and distinct invention.

The requirement is still deemed proper and is therefore made FINAL.

The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 35, 36, 46, 48, 49, 65, and 66 are rejected under 35 U.S.C. 102(b) as being anticipated by Sochava et al. (US 6,310,850).

Sochava et al. discloses a method and system for holographic data storage on a holographic data storage medium 10. See figure 1A, for example. Beams 16a and 16b can be generated from a single beam of laser light using a beam splitter and optical elements. The

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beams are incident upon opposite sides 18a and 18b of the medium 10 at slightly oblique angles. A hologram is formed where beams 16a and 16b constructively interfere in medium 10, which is then fixed to render the material in medium 10 insensitive to further holographic exposure at the wavelength used to record the format hologram. See col. 5, lines 38-58. "Fixing can be accomplished by ... exposure to the same wavelength light used to record the format hologram" (col. 10, lines 6-8).

Claims 70, 72 and 75 are rejected under 35 U.S.C. 102(b) as being anticipated by Haskal (US 6,023,352).

Haskal discloses an apparatus utilizing holographic data storage. See figure 1. The apparatus comprises: a source 16 providing a beam 18; and optics 22 for redirecting the beam that passes through the media 12 to one or more locations in the media 12 where one or more holograms 14 have been previously recorded to fix the location from further recording any hologram at the location.

Claims 75 and 76 are rejected under 35 U.S.C. 102(b) as being anticipated by Liu et al. (US 2002/0015376).

Liu et al. discloses an apparatus utilizing holographic data storage. See figure 2. The apparatus comprises: a source 104 providing a beam 108; and optics 128 for redirecting the beam that passes through the media 100 to one or more locations 102 in the media 100 where one or more holograms have been previously recorded. Note: using wavelength multiplexing techniques, multiple gratings can be stored in the same holographic-grating element 102 of the

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holographic medium 100, and thus can be readout using the beam of the same wavelength, independent of holographic gratings created at different wavelengths. See paragraph 0196. Therefore, the beam that passes through the media is redirected to locations in the media where one or more holograms have been previously recorded, albeit at different wavelengths, as claimed.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The references cited on the PTO-892 each disclose a holographic storage system.

Claims 1, 2, 4, 5, 8-10, 12-14, 17-19, 21, 22, 25-27, 29-31, 34, 50-56 and 58-64 are allowed.

Claims 44, 67, 68 and 71 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication should be directed to Paul Huber at telephone number 571-272-7588.

/Paul Huber/
Primary Examiner, Art Unit 2627

pwh
January 5, 2010